

# GILA RIVER BASIN

## 09512800 AGUA FRIA RIVER NEAR ROCK SPRINGS, AZ

**LOCATION.**--Lat 34° 00'56", long 112° 10'02", in NW1/4NW1/4 sec. 28, T.8 N., R.2 E., Yavapai County, Hydrologic Unit 15070102, on right bank 2.5 mi southwest of Rock Springs and 10 mi upstream from Lake Pleasant.

**DRAINAGE AREA.**--1,111 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

**PERIOD OF RECORD.**--Jan. 1970 to current year (monthly discharge only, Oct. 1973 to Sept. 1974). Low-flow records not equivalent prior to Oct. 1, 1974, due to spring flow in streambed between sites in use.

**REVISED RECORDS.**--WDR AZ-89-1: Drainage area.

**GAGE.**--Water-stage recorder and crest-stage gage. Elevation of gage is 1,800 ft above sea level, from topographic map. Prior to Oct. 1, 1974, at site 600 ft upstream at datum 10.00 ft higher.

**REMARKS.**--Records fair, except for estimated daily discharges, which are poor.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 59,500 ft<sup>3</sup>/s Feb. 19, 1980, gage height, 21.08 ft recorded, 28.15 ft from floodmark, from rating curve extended above 21,000 ft<sup>3</sup>/s on basis of slope-area measurement at gage height 27.2 ft; no flow at times each year prior to Oct. 1974; since Oct. 1974, no flow May 27 to July 12, 1977, and for many days in 1990.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 1,800 ft<sup>3</sup>/s and (or) maximum (\*), from rating curve extended on basis of slope-area measurement:

Date	Time	Discharge(ft <sup>3</sup> /s)	Gage height (ft)
Sept. 8.....	0530	3220	10.12
Sept. 9.....	0415	*7420	*13.16
Sept. 11.....	0600	3350	10.23

Minimum daily discharge, no flow for many days.

## DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	0.01	0.13	0.10	0.30	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.03	0.10	0.06	0.25	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.04	0.11	0.05	0.22	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.06	0.10	0.06	0.17	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.09	0.09	0.06	0.14	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.17	0.09	0.07	0.23	0.00	0.00	0.00	0.00	0.76
7	0.00	0.00	0.00	0.25	0.09	0.09	0.25	0.00	0.00	0.00	0.00	352
8	0.00	0.00	0.00	0.35	0.10	0.12	0.23	0.00	0.00	0.00	0.00	e695
9	0.00	0.00	0.00	0.33	0.09	0.11	0.21	0.00	0.00	0.00	0.00	896
10	0.00	0.00	0.00	0.35	0.08	0.09	0.22	0.00	0.00	0.00	0.00	26
11	0.00	0.00	0.00	0.29	0.08	0.08	0.20	0.00	0.00	0.00	0.00	898
12	0.00	0.00	e0.00	0.31	0.09	0.08	0.19	0.00	0.00	0.00	0.00	96
13	0.00	0.00	e0.36	0.08	0.09	0.13	0.00	0.00	0.00	0.00	0.00	20
14	0.00	0.00	e0.00	e0.30	0.07	0.08	0.09	0.00	0.00	0.00	0.00	6.8
15	0.00	0.00	0.00	0.19	0.07	0.09	0.06	0.00	0.00	0.00	0.00	4.0
16	0.00	0.00	0.00	0.21	0.08	0.12	0.07	0.00	0.00	0.00	0.00	1.8
17	0.00	0.00	e0.00	0.22	0.10	0.14	0.07	0.00	0.00	0.00	0.00	0.82
18	0.00	0.00	e0.00	e0.22	0.12	0.14	0.04	0.00	0.00	0.00	0.00	0.20
19	0.00	0.00	0.00	0.20	0.12	0.11	0.03	0.00	0.00	0.00	0.00	0.04
20	0.00	0.00	0.00	e0.23	0.12	0.11	0.03	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.22	0.11	0.10	0.03	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	e0.22	0.07	0.11	0.02	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.19	0.09	0.14	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.16	0.12	0.22	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.16	0.12	0.22	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	e0.00	e0.17	0.11	0.23	0.00	0.00	0.00	0.00	0.00	0.04
27	0.00	0.00	e0.00	e0.19	0.09	0.21	0.00	0.00	0.00	0.00	0.00	0.08
28	0.00	0.00	0.00	0.21	0.12	0.23	0.00	0.00	0.00	0.00	0.00	0.11
29	0.00	0.00	0.00	0.12	---	0.29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.15	---	0.29	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	---	0.00	0.14	---	0.27	---	0.00	---	0.00	0.00	---
TOTAL	0.00	0.00	0.00	6.19	2.74	4.16	3.18	0.00	0.00	0.00	0.00	2997.65
MEAN	0.000	0.000	0.000	0.200	0.098	0.134	0.106	0.000	0.000	0.000	0.000	99.92
MAX	0.00	0.00	0.00	0.36	0.13	0.29	0.30	0.00	0.00	0.00	0.00	898
MIN	0.00	0.00	0.00	0.00	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	0.00	0.00	0.00	12	5.4	8.3	6.3	0.00	0.00	0.00	0.00	5950
CFSM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
IN.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2002, BY WATER YEAR (WY)

MEAN	23.35	19.89	72.52	185.9	311.3	256.7	54.36	11.40	4.335	10.60	27.92	33.54
MAX	381	176	943	3301	3320	1967	338	70.7	46.1	51.4	164	360
(WY)	1973	1979	1979	1993	1980	1978	1973	1979	1979	1999	1988	1970
MIN	0.000	0.000	0.000	0.20	0.098	0.13	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	2002	2002	2002	2002	2002	2002	1972	1972	1971	1971	2002	2001

## SUMMARY STATISTICS

### FOR 2001 CALENDAR YEAR

### FOR 2002 WATER YEAR

### WATER YEARS 1970 - 2002

ANNUAL TOTAL	7214.27	3013.92	83.79
ANNUAL MEAN	19.77	8.257	499
HIGHEST ANNUAL MEAN			1993
LOWEST ANNUAL MEAN			2.58
HIGHEST DAILY MEAN	1020	898	32700
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	0.00
ANNUAL RUNOFF (AC-FT)	14310	5980	60700
ANNUAL RUNOFF (CFSM)	0.018	0.007	0.075
ANNUAL RUNOFF (INCHES)	0.24	0.10	1.03
10 PERCENT EXCEEDS	48	0.22	101
50 PERCENT EXCEEDS	0.01	0.00	2.6
90 PERCENT EXCEEDS	0.00	0.00	0.12

e Estimated